

August 28th, 2024

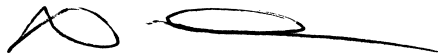
Subject: Certificate of Service.

I certify that on 08/28/2024 (service date) copies of the Response to the Objection of Claim number: 363. Case number 23-62260-dwh11 were mailed to:

Tonkon Torp LLP
Att: Timothy J. Conway
888 SW Fifth Ave., Ste 1600
Portland, OR 97204

Nelson S. Cardella

Printed Name

A handwritten signature in black ink, appearing to read 'Nelson S. Cardella', written over a horizontal line.

Signature

August 28th, 2024

Clerk of Court
1050 SW 6th Ave #700
Portland, OR 97204

Subject: Written Response to the objection of claim number: 363. Case number 23-62260-dwh11.

The following facts substantiate the claim and provides a response to the objection of the claim:

- I purchased an RV8A Quick Build Kit from Vans Aircraft, See receipt of full payments (Attachment #1&2).
- Both Quick Build Kits (Wings and Fuselage) contained Laser Cut Parts (LCP's).
- In order to remove all of the LCP's both kits would have to be disassembled. This work will be time consuming, will damage good parts that are already built and attached to structures, will bring both structures to a point of disassembly equal to a slow build kit (not a Quick Build Kit that I purchased and paid for).
- The Structural Engineering Data provided by Van's Aircraft Company was gathered by simulated testing conditions. At the moment of this writing, I'm not aware of any actual flying time data that support the testing predictions and conclusions.
- Van's Aircraft, Inc. own documentation provides steps to avoid and prevent cracks in aircraft parts. One Example, refer to Section 5: General Information (Attachment #3):

Subsection 5.2 EDGE FINISHING, HOLE DEBURRING & SCRATCH REMOVAL

"The problem with small cracks is that they soon become large cracks, one piece of aluminum becomes two pieces, etc. Obviously, we do not want this happening in our airframe, particularly when separated from solid earth by a lot of very thin air."

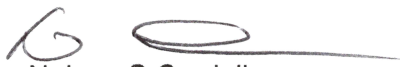
-Further, FAA publication: AC 43.13-1B- Advisory Circular, page 4-40: section 4-59 - REPAIRING CRACKED MEMBERS (Attachment #4):. List acceptable methods in repairing cracks. It clearly indicates that Heat-Treating operations will cause cracks. See below:

- a. Drill small holes 3/32 inch (or 1/8 inch) at the extreme ends of the cracks to minimize the possibility of their spreading further.
- b. Add reinforcement to carry the stresses across the damaged portion and to stiffen the joints. (See figures 4-14 through 4-17.) The condition causing cracks to develop at a particular point is stress concentration at that point in conjunction with repetition of stress, such as produced by vibration of the structure. **The stress concentration may be due to the design or to defects such as nicks, scratches, tool marks, and initial stresses or cracks from forming or heat-treating operations.** It should be noted, that an increase in sheet thickness

alone is usually beneficial but does not necessarily remedy the conditions leading to cracking.

- Van's Aircraft, Inc negligence, lack of Quality Control (QC) and Inventory Control caused this situation.
- Not performing this work and removing the LCP's will affect future resale values.
- This created emotional and financial stress to my family and myself.

Based on these facts I would like to respectfully request the court allow claim number: 363 to stand and the objection from Vans Aircraft, Inc. be denied.



Nelson S Cardella
2601 Ski Trail Lane
Waxhaw, NC 28173
nelcardella@hotmail.com
(704) 301-3852



VAN'S AIRCRAFT
TOTAL PERFORMANCE

VANS AIRCRAFT, INC.

14401 N.E. KEIL RD.
AURORA, OR 97002

Invoice

284507



Customer: 84056
CARDELLA, NELSON S
2601 SKI TRAIL LANE
WAXHAW, NC 28173
UNITED STATES

Telephone: 704 301 3852

Email: nelcardella@hotmail.com

Shipping address: CARDELLA, NELSON S.
2601 SKI TRAIL LANE
WAXHAW
NC
UNITED STATES
28173

Shipping Instructions: STEWART TRANSPORT
Tracking Number: 5/12/23-5/15/23

Sales Order	Invoice Date	Order Date	Order Terms	Salesperson	Purchase Order
185762	05/09/23	10/04/21	PAID	ANNE	QB FUSE

Stock code	Description	Ship quantity	Unit price	Gross amount
RV-8AQ FUSELAGE-1	QB FUSELAGE ONLY	1	15,300.00	15,300.00
			Discount:	-455.00
AN257-P3X6'	HINGE X 6'	1.000-	29.00	29.00-
ES 85615-157-1	FLAP ACTUATOR RV-6/7/8/9	1-	695.00	695.00-
VA-106	MAIN GEAR AXLE NUT (NOT FOR RV-10, 12 or 14/14	2-	16.00	32.00-
WD-820-L	BRAKE PEDAL ASSY LEFT	1.000-	36.75	36.75-
WD-820-R	BRAKE PEDAL ASSY RIGHT	1.000-	36.75	36.75-

----- Payment Method -----

DEPOSIT 14404.84

Total payment : 14404.84

Invoice amount : 14404.84

Change given : 0.00



VAN'S AIRCRAFT
TOTAL PERFORMANCE

VANS AIRCRAFT, INC.

14401 N.E. KEIL RD.
AURORA, OR 97002

Invoice

284507

NOTES

DELETED ITEMS ARE ON BACK ORDER
AND WILL SHIP AS SOON AS THEY
ARE AVAILABLE.

Total gross:	14,470.50
Total discount:	455.00
Total tax:	389.34
Total freight:	0.00
Less Payment:	14,404.84
Net amount due:	0.00

CURRENCY USD



VAN'S AIRCRAFT
TOTAL PERFORMANCE

VANS AIRCRAFT, INC.

14401 N.E. KEIL RD.
AURORA, OR 97002

Deposit Receipt

238006

Customer: 84056
CARDELLA, NELSON S
2601 SKI TRAIL LANE
WAXHAW, NC 28173
UNITED STATES

Telephone: 704 301 3852
Email: nelcardella@hotmail.com

Shipping address: CARDELLA, NELSON S.
2601 SKI TRAIL LANE
WAXHAW
NC
UNITED STATES
28173

Shipping Instructions: STEWART
Tracking Number:

Sales Order	Invoice Date	Order Date	Salesperson	Purchase Order
185761	05/23/22	10/04/21	ANNE	QWING

Stock code	Description	Warehouse	Ship quantity	Unit price	Gross amount
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----- Deposit Receipt -----

Deposit amount : 11335.57

Paid as : WEB CREDIT CARD PAYMENTS

Total deposit : 15128.07

NOTES



5.1 ALUMINUM PRIMING & PAINTING (continued)

Historically not many manufacturers primed the interior of their products, but there are still many flying 50 year old airplanes without corrosion problems. One favorite analogy around here is the car paint parable. Two cars leave the factory as identically primed and painted as is humanly possible. Five years later one looks as good as the day it left the showroom while the other looks fit for the wrecking yard. Same primer/paint, different result. How you treat it has a much greater effect than the primer you choose. How do you intend to treat your airplane?

An entire book could be written on the subject of aircraft painting and still leave many questions unanswered. There are many surface preparations, primers, and paints available, and more on the market every day. Paints range anywhere from the older enamels and acrylic lacquers up through the newer acrylic enamels, urethanes, and epoxy finishes. Which one is best probably depends on the end result desired by the individual builder. However, the urethanes seem to be favored by most builders now because of their relative ease of application and shiny, maintenance free finish. The purpose of this section is only to present some general ideas, not to provide the "best way" of applying the "best" paint.

COLOR SCHEME

Before getting serious about the type of paint to be used and the method and technique of application, most builders spend many months (or years?) while building trying to decide their paint scheme. Toward this end, little can be offered other than the suggestion that conservative colors and paint scheme will always look good on the basically good lines of an RV. More daring combinations of colors and patterns may result in a "fabulous" paint scheme, or could result in an eyesore too busy or gaudy to be appealing. Unless you have a very good eye for colors and patterns it may not be worth the gamble. We have provided a three-view drawing on which to practice. Just run off a few dozen copies on your office copier (when the boss isn't looking), buy a box of colored pencils and start sketching out your dream scheme. Aside from the aesthetic aspects of color scheme selection, you might also give serious thought to recognition, i.e., how well will your combination of colors stand out from the background when in flight. How visible will it be to pilots of other aircraft in flight? With the dense air traffic and haze of air pollution encountered around many airports, see-and-be-seen should be a major safety concern to all pilots. Light colors are generally considered to be the most visible against typical backgrounds found while flying in the USA. Yellow is probably the most universally visible, and can also be trimmed to provide very attractive paint schemes.

The question of whether a painted or bare aluminum airplane goes faster is often raised. Experience with the prototype RVs has not provided a definitive answer. It would appear that there is little difference in skin friction drag from a typical painted surface to a typical bare aluminum surface.

PAINTING HEALTH HAZARDS

WARNING: PLEASE TAKE PAINT MANUFACTURER'S TOXIC WARNINGS SERIOUSLY!!

Spray painting can present a health hazard, particularly with most of the newer two-part paints. Chemicals used in the hardeners of urethane, acrylic enamel, and epoxy paints cause them to be potentially very hazardous if breathed, and can be harmful even through excessive exposure to the skin. For this reason, the painting area must be well ventilated and a UL approved respirator must be used. A simple particle filter is just not good enough. Keep in mind that many paint systems now contain chemicals for which a conventional filter-type respirator is not considered sufficient protection. Only a forced fresh air respirator system is recommended. Also, full coverage clothing should be used to prevent skin exposure. Builders sometimes disregard warnings on the likes of paint cans because they become indifferent after daily exposure to warnings on all sorts of relatively benign household items. But where modern paints products are concerned, warnings should be taken very seriously.

PAINTING

Painting an airplane obviously adds to its weight. The amount of weight depends on the type and amount of paint, primer and surface filler used. A "keep weight to a minimum" paint job will weigh about 15 lbs. A really elaborate paint job with all the extras could add two or three times this weight. In addition, heavy paint jobs will tend to shift the Center of Gravity rearward because of the paint weight on the empennage. Control surface balance on the RVs has not been found to be critical. A normal (light) paint application on the ailerons and elevator will not upset their balance to a noticeable degree. However, a heavy paint job will require that these surfaces be re-balanced and additional counterbalance weight added if necessary.

MASKING

Application of masking tape for color separation and pin-stripping is perhaps the most time-consuming part of painting. Masking a straight line is tough enough, but getting just the right curve or "sweep" to a line is an art. Common hardware store masking tape usually gives poor results for distinct line separation because it permits too much "bleed under." Plastic "decorator" tape yields a nice crisp edge, but is rather expensive. Plastic electricians tape works fairly well and is relatively cheap. "Scotch" tape also works well but is hard to remove after painting.

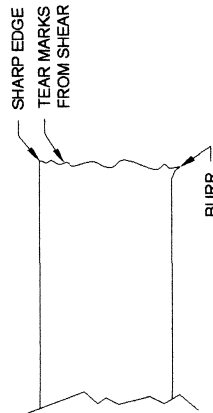
There is no doubt that a smooth, wave free surface offers less aerodynamic drag than an imperfect one, but it is not known how much effect this will have on the speed of an RV. Probably not much unless the entire airframe is filled and smoothed before painting, and then the paint is rubbed-out perfectly smooth. This would entail much work, add weight, and probably not be advisable unless the builder wanted a 100% perfect airplane rather than a 98% perfect one. The price for that last 2% would be high in terms of added work required.

For the typical paint job, the builder obviously should try to work in a dust free environment so the paint surface will be as smooth as possible without the need for rub-out. Spanwise trim stripes should be avoided very near the wing leading edge. Much is being written about the effects of spanwise surface irregularities on the boundary layer control on airfoils, particularly those on canard configuration airplanes. The concern is that any surface irregularity near the wing leading edge, particularly spanwise ones, can disrupt the boundary layer airflow, upset laminar flow, and cause an increase in drag and a decrease in lift. On canard airplanes this can seriously affect not only performance, but also stability and control. On an RV, with its conventional configuration and non-laminar flow airfoil, the effects of surface irregularities are relatively minor. However, a rough paint trim line within the first few inches of the wing leading edge would probably cause a measurable effect on stall and top speeds. Trim lines more than 8-9 inches from the leading edge have a minimal effect, but even then should be rubbed out as smoothly as possible.

5.2 EDGE FINISHING, HOLE DEBURRING & SCRATCH REMOVAL

Aluminum sheet of the 2024-T3 variety is relatively hard and brittle. Maintaining the high strength of this material in use requires that care be taken in its cutting, bending, and finishing. Because it is a hard material, it is scratch and notch sensitive. This means that sharp or rough edges, corners, and scratches can cause stress concentrations which will greatly increase the possibility of local failure, usually in the form of a small crack. The problem with small cracks is that they soon become large cracks, one piece of aluminum becomes two pieces, etc. Obviously, we do not want this happening in our airframe, particularly when separated from solid earth by a lot of very thin air.

SHEARED ALUMINUM SHEET



FINISHED EDGES

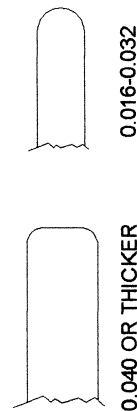


FIGURE 1: EDGES

AC 43.13-1B

9/8/98

4-59. REPAIRING CRACKED MEMBERS. Acceptable methods of repairing various types of cracks in structural elements are shown in figures 4-21 through 4-24. The following general procedures apply in repairing such defects.

a. Drill small holes 3/32 inch (or 1/8 inch) at the extreme ends of the cracks to minimize the possibility of their spreading further.

b. Add reinforcement to carry the stresses across the damaged portion and to stiffen the joints. (See figures 4-14 through 4-17.) The condition causing cracks to develop at a particular point is stress concentration at that point in conjunction with repetition of stress, such as produced by vibration of the structure. The stress concentration may be due to the design or to defects such as nicks, scratches, tool marks, and initial stresses or cracks from forming or heat-treating operations. It should be noted, that an increase in sheet thickness alone is usually beneficial but does not necessarily remedy the conditions leading to cracking.

4-60. STEEL AND ALUMINUM FITTINGS.

a. Steel Fittings. Inspect for the following defects.

(1) Fittings are to be free from scratches, vise and nibbler marks, and sharp bends or edges. A careful examination of the fitting with a medium power (at least 10 power) magnifying glass is acceptable as an inspection.

(2) When repairing aircraft after an accident or in the course of a major overhaul, inspect all highly-stressed main fittings, as set forth in the manufacturer's instruction manual.

(3) Replace torn, kinked, or cracked fittings.

(4) Elongated or worn bolt holes in fittings, which were designed without bushings, are not to be reamed oversize. Replace such fittings, unless the method of repair is approved by the FAA. Do not fill holes with welding rod. Acceptable methods of repairing elongated or worn bolt holes in landing gear, stabilizer, interplane, or cabane-strut ends are shown in figure 4-25.

b. Aluminum and Aluminum Alloy Fittings.

(1) Replace damaged fittings with new parts that have the same material specifications.

(2) Repairs may be made in accordance with data furnished by the aircraft manufacturer, or data substantiating the method of repair may be submitted to the FAA for approval.

4-61. CASTINGS. Damaged castings are to be replaced and not repaired unless the method of repair is specifically approved by the aircraft manufacturer or substantiating data for the repair has been reviewed by the FAA for approval.

4-62. SELECTIVE PLATING IN AIRCRAFT MAINTENANCE. Selective plating is a method of depositing metal from an electrolyte to the selected area. The electrolyte is held in an absorbent material attached to an inert anode. Plating contact is made by brushing or swabbing the part (cathode) with the electrolyte-bearing anode.

a. Selective Plating Uses. This process can be utilized for any of the following reasons.